Fatal Attraction

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Seagulls are medium to large birds that survive on live food or scavenge opportunistically. Their morphology allows for equal adeptness in swimming, flying, and walking. Gulls are highly intelligent and highly adaptable to diverse environments. Many species of gull have learned to coexist successfully with humans and have thrived in human habitats.

Have you ever seen flocks of “seagulls” swimming in the sea of mucus inside the human stomach? In the medical world “seagulls” refer to a bacteria called Helicobacter pylori. Under the microscope H. pylori resembles a flying “seagull” displaying its long outstretched wings colonizing the stomach. Helicobacter pylori is highly adapted to stay in the stomach for a long time through their ability to avoid, subvert, and exploit the host defence mechanism. Their ability to increase the pH of stomach and motility warrant their prolonged survival.

Upon entry into the stomach, H. pylori has to take hold quickly to avoid being killed by the harsh acidic environment of the stomach or swept into the intestine. The bacteria swim and propel through the sticky mucus. They drill, hide, and bury themselves into the mucus layer in the stomach lining. This mucosal layer offers an ideal ambience for H. pylori to multiply freely and form colonies.

Initially, H. pylori and the host form mutual benefits to establish a stable symbiosis. However this colonization does not have a happy ending but a fatal attraction. The colonies irritate and incite inflammation of the stomach over the course of life-long infection. This injures the stomach leading to ulcer or even severe complications like perforation and cancer formation.